

whose extent is not easy to estimate save for him who has to deal with the species, and he has made it possible to recognize the species treated. I do not expect to follow the work in its generic divisions or in accepting his generic types; but that does not lessen the value of the work to any one, while to one who thinks as Hampson does in the matter of generic types and characters, the work is simply indispensable.

Class I, HEXAPODA.

Order VI, TRICHOPTERA.

Order XIV, CORRODENTIA.

NEW TRICHOPTERA AND PSOCIDÆ.

BY NATHAN BANKS,

FALLS CHURCH, VA.

The following descriptions of six caddice-flies and six Psocidæ are the last that I shall publish before the appearance of my catalogue of our Neuropteroid insects.

Order TRICHOPTERA.

Holocentropus flavicornis, new species.

Vertex with a large patch of long white hair, and a tuft of dark rich brown hair each side; antennæ and palpi pale yellow; thorax white-haired in the middle and a brown stripe each side; abdomen brown, tips of segments above, pale; appendages yellowish; legs pale yellow, the hind tibiæ with many long hairs, the anterior tarsi somewhat dusky on the outer side. Wings brown, densely mottled with whitish or pale yellowish, the costal area before end of subcosta with three large dark spots, apical fringe alternately brown and pale; venation brown, with four whitish hyaline cross-veins; the arculus, that connecting cubitus to median, that between forks of median, and that from median to radial sector. Hind wings gray, with brown venation, and gray fringe. Expanse 12 mm.

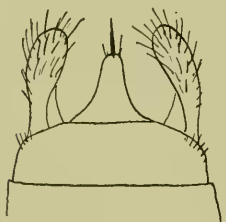


FIG. 1.

Several from Washington, D. C., High Island and Plummer's Island, Md.; June 23 to September. Fork 1 is present in the hind wings, as in *Plectrocnemia*; but its small size and general appearance is more like *Holocentropus*.

Neureclipsis parvula, new species.

Head brown in middle, posterior warts yellow, as also those of prothorax and lateral lobes of mesothorax; all warts bearing dense tufts of long yellow hair; antennæ and palpi yellow; abdomen brown, the ventral segments margined with pale; anal appendages yellow; legs clear, pale yellow. Wings yellowish, with yellow hair, venation pale, four whitish hyaline cross-veins: the arculus, one connecting cubitus to median, that between the forks of the median, and one from median to radial sector; hind wings yellowish, dusky toward tip. Expanse 11 mm.

Several specimens from Washington, D. C., High Island and Plummer's Island, Md.; June 17 to August 29.



FIG. 2.



FIG. 3.

Orthotrichia nigritta, new species.

Black, densely clothed with deep black hair, which in some lights shows purplish reflections; some brown hair on mesothorax, and on wings just before the up-turned tips, and the fringe, both costal and apical, brown; antennæ brown; legs brown, the tarsal joints paler on tips. Male genitalia shows a broad leaf-like plate each side, and a narrow, very hairy piece each side below it. Expanse 5.5 mm.

Three specimens from Austin, Texas, March 1.

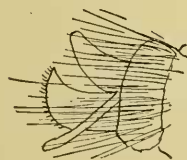


FIG. 4.



FIG. 5.

Hydroptila transversa, new species.

Head with gray hair on face, black between antennæ, and white on vertex, antennæ yellowish white, with a dusky band near middle, and the tip broadly dark; white hair on thorax, with some brown at base of wings; abdomen mostly clothed with white hair; legs pale yellowish, with yellowish hair, tibia and part of tarsus one darker, other tarsi also darker, and a long gray fringe from hind tibia of male. Wings mostly black-haired, not densely so; a very narrow, and not always distinctly complete transverse white line across wing near middle, beyond is one pale spot in

middle, one on costa, and one near tip, the extreme tip jet black; fringe dark gray to blackish, whitish at two spots on front margin, and two spots behind; hind wings pale, with gray tip, and a gray fringe, extremely long behind. Expanse 5.5 to 5.8 mm.

Several from Washington, D. C., September, at light.

Agraylea fraterna, new species.

Head black, with some black hairs around base of antennæ and below, above with whitish hair; antennæ blackish with white hair. Thorax black, with whitish hair; abdomen black, with a broad pale lateral stripe; venter pale near tip; legs pale yellowish, the femora with blackish on each side along the middle. Wings black to beyond the middle, then mostly whitish, except around tip, where there are six deep black marginal spots, separated by smaller white spots; in the black basal part there is an elongate whitish spot on the anal margin, and several small spots elsewhere; the white part beyond middle is indistinctly divided by a dark stripe; fringe mostly dark gray, white at white spots; hind wings pale, with long pale gray fringe behind. The ventral lobe of male is slender and reaches nearly to tip, much like *A. cognatella*. Expanse 8 mm.

Several specimens from Falls Church, Va., May 1.

Allotrichia flavida, new species.

Head blackish, with yellowish hair; antennæ yellowish, and with yellow hair, thorax brown, with yellowish hair, two especially conspicuous tufts from the pronotal warts; abdomen yellowish brown, dark at tip, clothed with whitish hair; legs pale yellowish, with almost white hair. Wings yellowish, some brown and black hair on basal third, and scattered elsewhere in patches, especially noticeable are six brown spots at the apex of the veins, and a streak at the end of anal vein, otherwise the hair is pale yellowish; apical fringe grayish, with some darker at anal angle; hind wings pale, with long fringe almost snow-white. Expanse 10 mm.

Three females from Ft. Collins, Colorado, June 9.

Order CORRODENTIA.

Myopsocus coloradensis, new species.

Head black, an elongate pale spot on each side of the nasus, and sometimes a spot each side on vertex. Antennæ pale, tips of joints black; thorax black, with a large pale spot on each lateral lobe; abdomen black; coxæ black, femora black except pale tip, tibia pale except black tip, first tarsal joint pale except black tip, and rest of tarsus black. Wings mostly black, paler on base and beyond middle, leaving a broad, oblique black band across middle of wing, several white spots on margin, and along veins are many white dots; the whole similar to *M. sparsus*, but blacker. It differs at once from *M. sparsus* by the shorter antennæ, the third joint (first long joint) being plainly shorter than the width of the head from eye to eye, while in *M. sparsus* the third joint is fully as long as width of head. Venation similar to *M. sparsus*, but the pterostigma is scarcely as wide, and the discal cell is usually faintly pedicellate. Length 4.5 to 5 mm.

Several specimens from Ft. Collins and Boulder, Colo. The latter taken by Professor Cockerell under stones on Flagstaff Hill.

***Psocus oppositus*, new species.**

Head pale, a black mark across base of nasus, and one over the ocelli; antennæ rather long, pilose, third joint as long as width of head; eyes not very large, but prominent, not as high as vertex, which is straight across on top; mesothorax with the usual pale Y-mark, leaving three large black spots; abdomen brown; legs pale yellowish. Wings hyaline, a brown mark at end of anal vein, and from thence a faint brownish cloud obliquely across the wing; pterostigma long, and rounded behind, mostly covered with a large brown spot, and opposite to it on the first posterior vein is a transverse brown spot of about equal size; base of pterostigma white, and before this a black dot; venation mostly brown, but the vein closing cell, and the fork of radial sector are white; cell not pedicellate, about one fourth narrower below, its upper and outer sides subequal; second posterior cell very narrow above. Length 4 mm.

Falls Church, Va., September. Readily known by position of spots on wings.

***Psocus medialis*, new species.**

Head pale, nasus hairy, a dark mark across its base, near base of antennæ, a prominent black spot over ocelli and extending up over middle of the vertex; antennæ pale, paler on base, with many long hairs, third joint less than width of head; eyes large and as high as vertex, which is straight across. Thorax shining black, with the usual pale Y-mark; abdomen (dry) black; legs pale, knees and tarsi blackish. Wings hyaline, a black dot at end of anal vein, also at base of pterostigma, latter barely darker than rest of wing, elongate, and rounded behind; venation brownish, vein closing cell and fork of radial sector white; cell about one half narrower below, outer side plainly longer than upper; in one specimen the cell is plainly pedicellate from radial sector. Length 3 mm.

From Appalachicola, Florida, on oak bark.

***Psocus infumatus*, new species.**

Head pale, nasus lineated with brown in the middle, and a few brown dots on the vertex; antennæ brownish, paler on the base, with very few short hairs, third joint as long as width of vertex; eyes very prominent, but hardly as high as vertex, latter straight across on top. Thorax brown, with the usual pale Y-mark, and a wedge-like pale mark on each lateral lobe; abdomen (dry) brown. Coxæ brown on base, rest paler, femora brownish above, pale below, tibiæ pale, tipped with brown, and tarsi mostly brown. Wings fumose; a brown cloud from tip of anal vein up to the median, a black dot at base of the pterostigma, beyond pale, the apical half brown; veins dark brown, that closing the cell, lower third of outer side of cell, and the fork of radial sector hyaline white; pterostigma angulate behind, rather long, and outer side strongly oblique; cell not pedicellate, almost one half narrower below, outer side plainly longer than upper; first posterior cell shorter on median vein than either the second or third. Length 4.8 mm.

One specimen from Falls Church, Va.

***Psocus moderatus*, new species.**

Head pale, black around the ocelli; antennæ brown, long, very hairy, third joint much longer than width of head; eyes of moderate size, almost as high as ver-

tex, latter straight across on top. Thorax dull brown, no distinct pale marks; abdomen brown; legs pale, tips of tibiae and the tarsi darker. Wings brownish fumose; the pterostigma rather darker, a black dot at its base, and one at end of the anal vein; venation blackish, the vein closing the cell, the one connecting to hind margin, the lower one fourth of the outer side of cell and the fork of the radial sector hyaline white. Pterostigma elongate, rounded behind; discal cell long, with a long pedicel from radial sector, almost as long as lower side of cell, which is barely one half as long as the upper side; outer side one third longer than upper side. Length 6 mm.

Mt. Katahdin, Maine.

***Elipsocus occidentalis*, new species.**

Head blackish; antennae pale brownish; thorax black; abdomen (dry) black; legs yellowish brown. Wings hyaline, a dark cloud in middle, a spot on pterostigma, and the upper edge of the first posterior cell margined with brown. Sometimes some or all of these markings lacking (perhaps freshly transformed specimens). Antennae rather heavy, third joint about as long as width of the head, eyes rather prominent, as high as vertex, which is straight across. Venation as usual, pterostigma long and slender; first posterior cell high, but not very near to median vein; radial sector and median vein united only a short distance before the fork, which is sudden, and very wide at base. Length 2.5 mm.

Several from Victoria, Vancouver Island (Bergroth.)

Class I, HEXAPODA.

Order XI, ORTHOPTERA.

ON SOME FORFICULIDÆ OF THE UNITED STATES AND WEST INDIES.

BY A. N. CAUDELL,

WASHINGTON, D. C.

***Pyragra buscki*, new species.**

One male, Baracoa, Cuba, October 14, 1901 (Busck).

Description.—Male. Entire insect considerably flattened, microscopically pubescent and uniformly reddish brown except the base of the wings where the color is much lighter. Antennae of at least 29 segments, the first and third elongate and equal, the second short; beyond the third segment the joints are short, growing longer and smaller towards the apex of the antenna. Pronotum nearly square, narrowing very abruptly anteriorly, posteriorly broadly rounded. Elytra almost twice as long as broad, not quite as long again as the pronotum, laterally extending well down the sides of the thorax as in the type species; posteriorly the elytra are truncate. Wings extending beyond the elytra a distance equal to scarcely one third the length of the